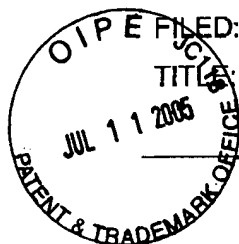


## UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S) Korus, et al. GROUP ART UNIT: 2665  
APPLN. NO.: 09/992,289 EXAMINER: Phuongchau Ba Nguyen  
FILED: November 19, 2001 Confirmation No. 7037  
TITLE: METHOD AND APPARATUS FOR A MOBILE NODE TO MAINTAIN  
LOCATION PRIVACY FROM SELECTED CORRESPONDENT NODES

**DECLARATION UNDER 37 C.F.R. § 1.131**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The following Declaration and attachments are to establish conception in the United States of claimed subject matter in the referenced patent application and diligence to the filing of the referenced patent application on 19 November 2001 from a date prior to the effective date of United States Patent Publication No. US 2003/0093553 by Le et al. which was filed in the United States on 9 November 2001, and relied upon by the Examiner to support a rejection under 35 U.S.C. 102 in the Office Action dated 8 April 2005.

In support of this declaration, I, Michael F. Korus of Eden Prairie, Minnesota, declare and say the following:

That I, in association with Adam C. Lewis, my co-inventor in the above-identified patent application, conceived the claimed subject matter of the referenced patent application in the United States before 9 November 2001, the filing date of United States Patent Publication No. US 2003/0093553 of Le et al., in the course of employment by Motorola Inc., wherein the referenced application has been assigned thereto and a copy of the assignment has been attached as Appendix I;

That the claimed subject matter of the referenced patent application was the subject of a written disclosure prepared after conception, which discloses the

CM05016H

conception date that is prior to 9 November 2001 and wherein the written disclosure was submitted in a disclosure form, used by the assignee, Motorola Inc., for the purpose of documenting, considering and maintaining invention disclosures (disclosure attached as Appendix II);

That the conception date which is the earliest verifiable date an individual who is a non-innovator witnessed the claimed subject matter, redacted from the disclosure form attached as Appendix II is prior to 19 November 2001;

That on information and belief on or about 15 June 2001 Motorola Inc. received the disclosure for review and subsequently decided to pursue patent protection on the written disclosure, and that thereafter, in due course, a patent application was prepared and filed in the United States Patent Office on 19 November 2001 by or on behalf of Motorola Inc.;

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

 July 8, 2005

Michael F. Korus

Date

### ASSIGNMENT AND AGREEMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, **MICHAEL F. KORUS, HOFFMAN ESTATES, IL; and ADAM CORY LEWIS, BUFFALO GROVE, IL**, have sold, assigned and transferred, and do hereby sell, assign and transfer, unto **MOTOROLA, INC.**, a corporation of the State of Delaware, having its principal office in Schaumburg, State of Illinois, United States of America, and its successors, assigns, and legal representatives, the entire right, title and interest for the United States of America in and to certain inventions relating to improvements in **METHOD AND APPARATUS FOR A MOBILE NODE TO MAINTAIN LOCATION PRIVACY FROM SELECTED CORRESPONDENT NODES** (Docket No. **CM05016H**), described, illustrated and claimed in an application for Letters Patent of the United States of America executed by us on the dates indicated by our signatures below, together with the entire right, title and interest in and to the application, and in and to Letters Patent which may be issued upon the application, and upon any division, extension, continuation or reissue thereof.

We hereby also sell, assign and transfer unto **MOTOROLA, INC.**, the entire right, title and interest in and to the invention and in and to applications for Letters Patent therefor in all countries foreign to the United States of America, including all rights under any and all international conventions and treaties in respect of the invention and the applications for Letters Patent in foreign countries, and we further authorize **MOTOROLA, INC.** to apply for Letters Patent in foreign countries directly in its own name, and to claim priority of the filing date of the application for Letters Patent of the United States of America under the provisions of any and all international conventions and treaties.

We hereby authorize and request the Commissioner of Patents of the United States of America to issue Letters Patent upon the aforesaid application, division, extension, continuation or reissue, to **MOTOROLA, INC.**, for the sole use and benefit of **MOTOROLA, INC.**, its successors, assigns and legal representatives, to the full end of the term for which Letters Patent may be granted, the same as they would have been held and enjoyed by me had this assignment not been made, and we hereby authorize and request the equivalent authorities in foreign countries to issue the patents of their respective countries to **MOTOROLA, INC.**

We agree that, when requested, we will, without charge to **MOTOROLA, INC.**, but at its expense, sign all papers, take all rightful oaths, and do all acts which may be

necessary, desirable or convenient for securing and maintaining patents for the inventions in any and all countries and for vesting title thereto in MOTOROLA, INC., its successors, assigns and legal representatives or nominees.

We covenant with MOTOROLA, INC., its successors, assigns and legal representatives, that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license or other encumbrance.

Michael F. Korus  
MICHAEL F. KORUS

DATE: 11/19/01

STATE OF IL

COUNTY OF COOK

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Michael F. Korus whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 19th day of November, 2001.

My commission expires:



Sheila R. Mannerino  
Notary Public Signature  
SHEILA R. MANNERINO  
Printed Name of Notary Public

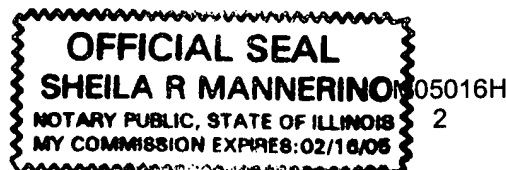
Adam Cory Lewis  
ADAM CORY LEWIS

DATE: 11/19/01

STATE OF IL

COUNTY OF COOK

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Adam Cory Lewis whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.



November 19 2001  
Sheila R. Mannerino  
SHEILA R MANNERINO



## Disclosure CM05016H (11239)

**ID:** CM05016H (11239)  
**Title:** Method for mobile node to maintain location privacy while attached to a mobile router  
**Innovators:** Mike Korus, Adam Lewis  
**Status:** Filed   
**Disposition:** Pursue   
**Submitted Date:** 15 Jun 2001  
**Review Date:** 24 Jul 2001 1:15 PM  
**Motorola Business:** GEMS  
**Patent Committee:** Schaumburg - Systems  
**Business Unit:** GEMS-GTDG (Rauch)  
**Organization:** CGISS, GTDG, WRLD SYS DVL  
**Department:** DQ503  
**Location:**  
**Submit Country:** USA  
**Last Modified Date:** 15 Jun 2001

### Workflow

| Role            | Name                   | Action   |
|-----------------|------------------------|--|
| First Innovator | <u>Mike Korus</u>      | <u>Verification Complete 6/19/2001</u>                     |
| Co-Innovator    | <u>Adam Lewis</u>      | <u>Verification Complete 6/18/2001</u>                     |
| Witness         | <u>Fareed Masarrat</u> | <u>Acknowledgement Complete 6/20/2001, Notebook Signed</u> |
| Witness         | <u>Vidya Narayanan</u> | <u>Acknowledgement Complete 6/18/2001, Notebook Signed</u> |
| Manager         | <u>Brad Hiben</u>      | <u>Acknowledgement Complete 6/25/2001</u>                  |

### Reviewer Information

| Role                   | Name | Action |
|------------------------|------|--------|
| <u>Grading Results</u> |      |        |

### Documents

| Document Name               | Description | Document Type | Uploaded By | Uploaded Date | Size    |
|-----------------------------|-------------|---------------|-------------|---------------|---------|
| <u>Mobility Privacy.doc</u> |             | Unspecified   |             | 15 Jun 2001   | 47.5 Kb |

### Questions

Name of Innovation or Engineering Development?

Method for mobile node to maintain location privacy while attached to a mobile router

**What is the problem(s) to be resolved by or need(s) for your idea?**

Future CGISS systems will be more Internet centric and based on open standards. The area of mobility and fast hand-off is one of the areas being heavily researched. The problems not being addressed in current technologies and standards is privacy of users attached to mobile networks. Existing internet mobility drafts require the option of hiding "mobility" from correspondent nodes. Existing mobile network solutions do not solve this problem.

**What patents or publications describe your idea and why don't they resolve the problem(s) or fulfill the need(s)?**

1. "Extending Mobile-IPv6 with Multicast to support Mobile Networks in IPv6", Thierry Ernst, et. al., Motorola Labs Paris

This art utilizes multicast to distribute binding update to correspondent nodes – when a mobile router moves, it (the mobile router) sends a binding update (representing all attached hosts) to a multicast group that all correspondent nodes listen to. This means that all correspondent nodes in the network will be aware of the mobile node's movement, which is not always desirable.

2. "Mobility Support in IPv6", draft-ietf-mobileip-ipv6-13.txt

This art teaches a method of hiding mobility from a mobile hosts transmit perspective but not from a mobile host receive perspective.

**What is the idea you are disclosing? Please provide a written description summarizing the idea. Please define all acronyms and other terms of art used.**

The invention being disclosed is a messaging algorithm between mobile hosts and a registration server (e.g. resident in a mobile router or a Home Agent) to register location privacy attributes. The mobile host may set-up the following location privacy attributes:

- do not send any binding update to any correspondent node for this host
- send a binding update to correspondent nodes containing the unicast CoA (inclusive or exclusive lists)
- send a binding update to correspondent nodes containing the multicast CoA (inclusive or exclusive lists)
- send a binding update to the correspondent nodes containing both the unicast and the multicast CoA (inclusive or exclusive lists)

**How does this idea resolve the problem(s) or fulfill the need(s) in a new way?**

This invention solves the location privacy problem by allowing the host to specify how the mobile router to which it is fixed sends binding updates (on its behalf) to the rest of the Internet (e.g. the nodes which correspond with the mobile node). The previous art placed all the control in the mobile router, always advertising to all correspondent nodes in the internet when the host moved (via its mobile router).

**How or where will this idea be used (e.g. what process or product will it be applied to)?**

Wideband next generation CGISS communications systems

**Please enter one or more key words that may be used to identify your disclosure.**

**Is this disclosure a resubmission of a disclosure you have previously submitted?**

NO

**Please enter the forum from which this idea originated - e.g. Quest for Innovation, Advanced Inventing Session, Patent Scrub, etc. (Optional).**

**Do you plan to disclose your idea outside of Motorola (e.g. conference, publication, customer meeting, product offering, etc.)?**

NO

**Is your idea known or has it been disclosed outside of Motorola without a duty of confidence (e.g., non-disclosure agreement, joint development agreement, etc.)?**

NO

Has a product incorporating your idea been sold, offered for sale, placed in production, qualification, sampled, described in any publication (including Motorola promotional literature), marketed, shipped to anyone outside of Motorola (customer or distributor), or placed into inventory?

NO

What is the earliest verifiable date that you communicated your idea to an individual that is NOT an innovator (e.g., the date a non-innovator witness signed your engineering notebook)?

Redacted

Was your idea created or developed through work performed with a consortium, alliance, government contract, university, or joint venture?

NO

Please specify the Export Control Classification Number(s) (ECCN) to which this disclosure pertains

Unknown

#### Standards

None Selected

#### Key Technologies

None Selected

#### Innovators

##### Michael F Korus (Mike)

The address and personal information for this innovator should be treated as confidential.

|                             |  |                         |  |
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| <b>Department:</b>          | DQ503  | <b>Location:</b>        |  |
| <b>Mail Drop:</b>           | 0509   | <b>Manager:</b>         | George Economy                                       |
| <b>Motorola Business:</b>   | GEMS   | <b>Business Unit:</b>   | GEMS-GTDG (Grube)                                    |
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##### Adam C Lewis

The address and personal information for this innovator should be treated as confidential.

|                             |  |                         |  |
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Attorney-Client Privileged Upon Completion

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Send any comments to: [eIntelligence Contacts](#)  
Last Updated: 8 July 2004

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